Application No. 10/623,645
Amendment dated November 18, 2008
Reply to Office Action of May 23, 2008

Docket No.0941-0796PUS1
Art Unit: 2635
Page 4 of 10

REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claim 1 is cancelled herein without prejudice to or disclaimer of the subject matter set forth therein. Claims 3 and 4 were previously cancelled. Independent claim 1 and remains as originally filed. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance.

In the alternative, if the Examiner does not agree that this application is in condition for allowance, it is respectfully requested that this Amendment be entered for the purpose of appeal. This Amendment was not presented at an earlier date in view of the fact that Applicants did not fully appreciate the Examiner's position until the Final Office Action was reviewed.

Rejections Under 35 U.S.C. §103(a)

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nose (US Pat. App. No. 2002/0163490) in view of prior art taught by Nose; and.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nose in view of Zavracky et al. (US Pat. App. No. 2001/0054989) and in view of prior art taught by Nose.

Application No. 10/623,645
Amendment dated November 18, 2008
Reply to Office Action of May 23, 2008

Docket No.0941-0796PUS1
Art Unit: 2635
Page 5 of 10

These rejections are respectfully traversed.

Independent Claim 1 Cancelled

While not conceding the appropriateness of the Examiner's rejection, but merely to advance the prosecution of the present application, independent claim 1 has been cancelled.

Arguments Regarding Independent Claim 2

Independent claim 2 as originally filed recites a data driver of a display forming an image frame by sequentially scanning horizontal lines, the data driver comprising:

a shift register receiving image data of three primary colors in serial and outputting the image data of the three primary colors in parallel within each of scan durations of the horizontal lines;

a sample and hold register acquiring the image data of the three primary colors from the shift register;

a first multiplexer receiving the image data of the three primary colors from the sample and hold register and outputting them in a sequence of the primary colors within each of the scan durations of the horizontal lines;

a second multiplexer outputting gamma reference voltages for the three primary colors in the sequence of the primary colors within each of the scan durations of the horizontal lines;

a digital-to-analog converter for gamma calibration, receiving the image data from the first multiplexer and the gamma reference voltages from the second multiplexer, and

Application No. 10/623,645
Amendment dated November 18, 2008
Reply to Office Action of May 23, 2008

Docket No.0941-0796PUS1
Art Unit: 2635
Page 6 of 10

outputting calibrated image signals of the three primary colors; and

a buffer receiving the calibrated image signals from the digital-to-analog converter and outputting the calibrated image signals in the sequence of the primary colors.

Support for the novel features set forth in independent claim 2 can be seen, for example, in FIG. 4 of the present application, which clearly illustrates the sample and hold register (2) between the shift register (1) and multiplexer (6).

Arguments made by the Examiner

On page 8 of the Office Action, the Examiner points out that the "Description of the Related Art" section and FIG. 11 (Prior Art) of the Nose document teaches "data register section 164" and "latch section 165", and asserts that these correspond to the "sample and hold register 2" of the present invention.

On page 9 of the Office Action, the Examiner concedes that primary reference Nose fails to disclose *"a first multiplexer receiving the image data of the three primary colors from the sample and hold register and outputting them in a sequence of the primary colors within each of the scan durations of the horizontal lines"*.

Then on page 10 of the Office Action the Examiner asserts that Zavracky et al. FIG. 15A teaches "a method of multiplexing the image data of the three colors". The Examiner then asserts that the combination of the Nose (Prior Art FIG. 11) and Zavracky et al. (FIG. 15A) teaches the present invention.

The Applicants respectfully disagree.

The Applicants submit that Zavracky et al. cannot be combined with Nose to teach, disclose or suggest "*a sample and hold register acquiring the image data of the three primary colors from the shift register;*

a first multiplexer receiving the image data of the three primary colors from the sample and hold register and outputting them in a sequence of the primary colors within each of the scan durations of the horizontal lines", as set forth in independent claim 2.

Arguments of the Applicants

The Examiner is directed to Zavracky et al. (paragraph 123 and Fig. 15A) which describes "The 8-bit output from the multiplexers 730R, 730G, 730B are received by a 3:1 RGB multiplexer 740. The three colors are time sequenced by the RGB multiplexer 740 to yield a 24-bit digital signal. A DAC 750 converts the 24-bit digital signal to a sequential RGB analog video signal".

Moreover, Zavracky et al. (paragraph 124 and Fig. 15B) describes "The sequential RGB video signal is received by an input circuit 760 which includes variable gain amplifier 762 to adjust contrast and a potentiometer 764 to adjust brightness" and "An output network 780 is also switched to provide two sets of 16 channels--one set holds signals to display while the other set sampling data for display on the next cycle. The output network 780 is preferably a sample and hold network". Specifically, Zavracky et al. merely disclose that the color data of the multiplexers 730R, 730G, 730B are received by the multiplexer 740 to generate the sequential RGB video signal via the DAC 750, and then the sequential RGB video signal is transmitted to the sample and hold network 780 via the input circuit 760.

However, Zavracky et al. do not teach, disclose or suggest *"a sample and hold register acquiring the image data of the three primary colors from the shift register;*

a first multiplexer receiving the image data of the three primary colors from the sample and hold register *and outputting them in a sequence of the primary colors within each of the scan durations of the horizontal lines,* as set forth in independent claim 2 as originally filed". *(Emphasis added.)*

The Examiner concedes that Zavracky et al. fail to disclose a "sample and hold register".

Since Zavracky et al. fail to disclose a "sample and hold register", multiplexer 740 of Zavracky et al. cannot possibly receive the "image data of three primary colors from the sample and hold register", as set forth in independent claim 2.

As noted above, the Examiner asserts that the Nose FIG. 11 teaches "data register section 164" and "latch section 165", and asserts that these correspond to the "sample and hold register 2" of the present invention.

However, the Applicants dispute the Examiner's assertion that register section 164 and latch section 165 teach the "sample and hold register" of the present invention.

Nonetheless, merely for the sake of argument, even if "register section 164 and latch section 165" were to correspond to the "sample and hold register" of the present invention (which the Applicants dispute), Nose FIG. 11 fails to disclose a multiplexer of any sort that would receive "image data of three primary colors" from "register section 164 and latch section 165". Instead, it is Nose "level shift section 166" (which certainly is NOT a

Application No. 10/623,645
Amendment dated November 18, 2008
Reply to Office Action of May 23, 2008

Docket No.0941-0796PUS1
Art Unit: 2635
Page 9 of 10

multiplexer) which receives a signal from the "register section 164 and latch section 165" of Nose.

Since Nose FIG. 11 merely discloses "level shift section 166" (rather than a multiplexer) receiving data from "register section 164 and latch section 165", and since Zavracky et al. fail to disclose a "sample and hold register", and instead merely disclose "the color data of the multiplexers 730R, 730G, 730B are received by the multiplexer", one skilled in the art at the time the present invention was made would NOT arrive at the present invention by combining the teachings of Nose and Zavracky et al.

At least for the reasons described above, independent claim 2 is patentable over the cited arts, and the rejection of independent claim 2 under 35 U.S.C. 103(a) should be withdrawn.

Independent claim 2 is in condition for allowance.

Application No. 10/623,645
Amendment dated November 18, 2008
Reply to Office Action of May 23, 2008

Docket No.0941-0796PUS1
Art Unit: 2635
*Page 10 of 10*

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the Carl T. Thomsen, Reg. No. 50,786, at 1.703.208.4030 (direct line), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: November 18, 2008

Respectfully submitted,

By
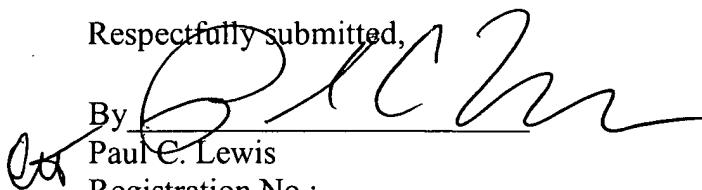
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